

**REMARKS**

Reconsideration of the present application is respectfully requested.

Subsequent to claims 2 – 4 being canceled, claim 1 remains pending and is amended herein.

Claim 1 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 11-348576 to Mori (Mori) in view of U.S. Patent No. 6,329,439 to Peterson et al. (Peterson), U.S. Patent No. 5,728,744 to Okada et al. (Okada) and U.S. Patent No. 5, 992,928 to Kato et al. (Kato). The applicants respectfully traverse this rejection.

Claim 1 has been amended to recite further details of the door weather strip of the present invention. Specifically, claim 1 has been amended to recite that the door weather strip of the present invention includes a base portion, a tubular main seal portion, and a lip-shaped sub-seal portion.

As recited in claim 1, the door weather strip of the present invention includes an extruded member composed of foamed thermoplastic olefin elastomer (TPO) that is prepared by chemical foaming and has an average cell diameter of 30 to 70  $\mu\text{m}$ , an expansion ratio of 150 to 250 % and a low deformation tensile stress of 300 Kpa or less. The door weather strip of the present invention as recited in claim 1 also includes a molded part that is composed of a non-foamed TPO with a hardness of Hs 40° to 50°. In addition, claim 1 recites that the extruded member and the molded part have approximately the same hardness and that the door weather strip exhibits approximately uniform flexibility over its entire length.

The applicants respectfully direct the examiner's attention to MPEP §2144.09, which states that a *prima facie* case of obviousness is rebutted by proof of unexpected or superior results. The weather strip as recited in claim 1 provides superior results. Specifically, the

weather strip as recited in claim 1 has smooth surfaces and exhibits good sealing and attachment properties (see page 3, lines 20 – 24). In addition, the door weather strip as recited in claim 1 provides approximately uniform flexibility over its entire length. The superior results are in part due to the fact that the extruded part is made of a TPO with the specific characteristics recited in claim 1 (a cell diameter of 30 to 70  $\mu\text{m}$ , an expansion ratio of 150 to 250 %, and a low deformation tensile stress of 300 Kpa or less). The superior results are also in part due to the fact that the molded part is made of a TPO with a hardness of Hs 40° to 50° and the fact that the molded piece and the extruded piece are composed of materials of similar hardness.

Mori discloses a weather strip that includes an extruded portion and a molded portion for connecting ends of the extruded portion. Mori also discloses that the extruded portion includes a TPO rubber solid part and a TPO sponge part. Mori does not, however, show or suggest that the door weather strip exhibits approximately uniform flexibility. In addition, Mori does not disclose the cell diameter and the expansion ratio of the sponge part of the extruded portion, or the hardness of the molded portion as recited in claim 1 of the present invention.

Peterson discloses foamed TPOs composed of cells that have mean diameters ranging from 0.01 mm to 1 mm (10  $\mu\text{m}$  to 1000  $\mu\text{m}$ ). However, Peterson fails to refer to the molded part of the weather strip, much less the hardness of the molded portion as recited in claim 1 of the present invention. In addition, as disclosed on page 6, line 18 through page 7, line 3 of the instant application, when the average cell diameter is less than 30  $\mu\text{m}$  and greater than 70  $\mu\text{m}$ , the flexibility of the tubular seal portion and the lip-shaped seal portion is too high and too low, respectively, to provide the superior results provided by the present invention. The applicants assert that although the ranges of the average cell diameter recited in claim 1 overlap those disclosed by Peterson, the use of a TPO with an average cell diameter of 30  $\mu\text{m}$  to 70  $\mu\text{m}$  is

critical to obtain the superior results discussed above. The applicants direct the examiner's attention to MPEP §2144.05 (III), which states “[A]pplicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing the criticality of the claimed range.”

Okada discloses a weather strip composed of a sponge TPO that has an expansion ratio of 2 or more times. The expansion ratio of the extruded member of the present invention (150% to 250%) is partly within the range taught by Okada. However, as disclosed on page 6, line 24 – page 7, line 3 of the instant application, when the expansion ratio is greater than 250%, the seal portions are less firm. Although the ranges for the expansion ratio recited in claim 1 and disclosed by Okada overlap, the use of a TPO with an expansion ratio of 150% to 250% is critical to obtain the superior results discussed above.

Kato discloses a movable window 1 that includes a transparent synthetic resin plate 11, a molding 12 arranged to peripherally encompass the plate 11 and a weather strip 4. Kato teaches that the molding 12 is made of flexible polyvinyl chloride, ethylene-propylene-diene terpolymer (EPDM) or TPO and that the rubber hardness of the molding 12 is preferably between Hs 20° and 80°. However, as shown, for example, in FIG. 1, Kato fails to show or suggest that the weather strip 4 includes a tubular main seal portion as recited in claim 1. Rather, the weather strip 4 and the molding 12 have block-shaped configurations and their flexibility is not important. Therefore, the hardness of the molding and of the weather strip can be within a wide range, i.e., from Hs 20° to 80°.

Although the ranges of hardness recited in claim 1 and disclosed by Kato overlap, the inclusion of a molded part composed of a non-foamed TPO that has a hardness of Hs 40° to 50° is critical to obtain the superior results obtained by the weather strip of the present invention. When the hardness is not with Hs 40° to 50° the weather strip does not provide adequate

flexibility to provide adequate sealing. In addition, Kato neither shows nor suggests making the hardness of the extruded member and the molded part approximately equal to make the flexibility of the door weather strip uniform.

Mori, Peterson, Okada and Kato, considered individually or in combination, fail to show or suggest a weather strip that provides the superior results provided for in the weather strip recited in claim 1.

Further, the applicants remind the examiner that he cannot pick and choose among references using hindsight based on knowledge that was gleaned from the applicants' disclosure (see MPEP §2145 (X)(a)). It appears that the combination of Mori, Peterson, Okada and Kato presented by the examiner is tantamount to a reconstruction of the claimed invention by picking components of several references from diverse arts and using the applicants' invention as a blueprint to make the combination. This is supported by the fact that each of the cited references does not disclose several of the specific characteristics recited in claim 1 and instead recites only one or two specific characteristics. The Examiner had to rely on multiple references to piece together a rejection of the applicants' claim 1.

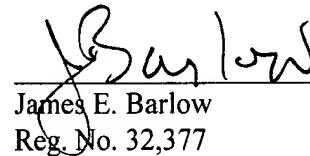
In view of the above amendments and arguments, the applicants respectfully request that the rejection of claim 1 be withdrawn.

New claim 5 has been added. New claim 5 generally corresponds to claim 1 but recites the molded part and the extruded member in different terms and does not recite that the door weather strip exhibits approximately uniform flexibility over its entire length.

In view of the above amendments and remarks, the present application is now believed to be in condition for allowance. A prompt notice to that effect is respectfully requested.

Please charge any additional necessary fees to Deposit Account No. 50-1147.

Respectfully submitted,

  
\_\_\_\_\_  
James E. Barlow  
Reg. No. 32,377

JEB/khh  
Posz & Bethards, PLC  
11250 Roger Bacon Drive  
Suite 10  
Reston, VA 20190  
(703) 707-9110  
Customer No. 23400